Extending the OPAC: Integrating WorldCat, Maps, and More into Aleph

IGeLU

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Introduction

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The State of Libraries and the Internet

- Libraries are no Longer the Only Place for Search and Books
  - Google and Yahoo changed the way users think about search expertise
  - Large digitzation projects are offering text online

- But … Libraries Offer Content and Services
  - Books
    - Get Books for You - ILL
    - Deliver Books to You – Document Delivery
    - Get a readable copy
  - Journals
    - Pay for access
  - Reserves
  - Spaces to Meet, Read, Discuss
  - Information literacy
 - And so much more …

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Where Libraries Can Focus Their Energy

- Bringing our Tools in Line with User Expectations created by the Internet

- Stop Making Them Go to a Specific Place - Integrate Services Where the User Is
  - Facebook
  - Course management systems
  - Etc.

- Making More Logical Paths to Getting What Patrons Need

- Users Want to Be Able to Do It Themselves, but they also have a low tolerance for something that is difficult to do

The Opportunities

- Libraries have the opportunity to be technology leaders and deliver what our patrons want
  - ➢ We have amazing structured data
  - ➢ We have contact with our specific communities of users
  - ➢ But … we need programmers and technology specialists, who are also library aware

- ExLibris Open Platform
  - ➢ Commitment to open parts of systems
  - ➢ Platform for sharing code

- Local Customization will require
  - ➢ High Level Programmers to lead development
  - ➢ Web Developers with basic understanding of scripting to implement

Solutions Engineering
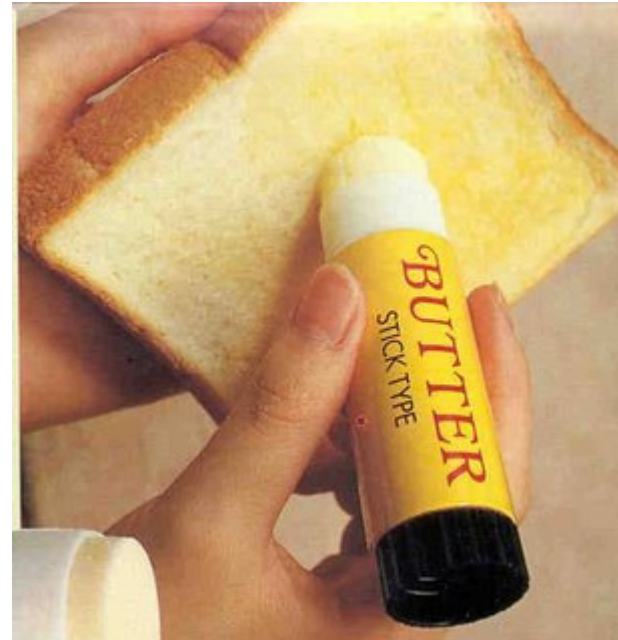
Technology Skills

- Technology for Development in Libraries
  - XHTML
  - CSS (Cascading Style Sheets)
  - Javascript
    - AJAX (Asyncronous Javascript and XML)
    - JSON (JavaScript Object Notation)
  - XML (eXtensible Mark-up Language)
    - XSLT (XML Style Language Transformation)
  - Open Standards
    - OpenURL
  - Database Skills: MySQL, Posgres, Oracle
  - SQL

Technology Skills

- WebServices
  - HTTP
  - SRU (Search and Retrieval URL)
  - XML
- Scripting Language
  - PERL
  - PHP
  - ASP, .net, C#
  - Ruby
  - Python
- Programming Language
  - Java
  - C++

Enhancing the OPAC

- Reusing Catalog Data to:
  1. enhance findability
  2. reduce dead ends
  3. reduce user keying and clicking
  4. reusing existing (robust) data
  5. better fulfill user expectations set by the Internet (bring the OPAC closer to next gen systems)

Process for Determining Enhancements

- Requests from:
  - committees
  - individuals
  - administration

Process (cntd)

- Determine Feasibility

  ➢ What systems can accomplish the goal?

  ➢ What are the dependencies?

- Cost/Benefit Balance

  ➢ How much person time is involved vs how will this benefit

    - internal operations
    - users

Process (cntd)

- Brainstorm
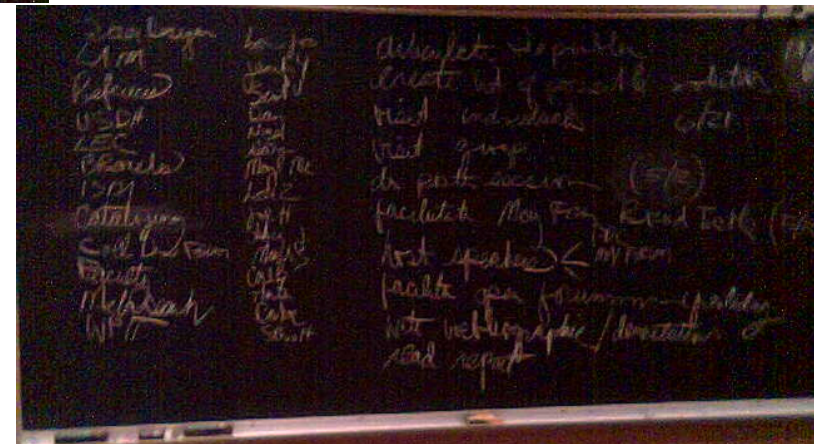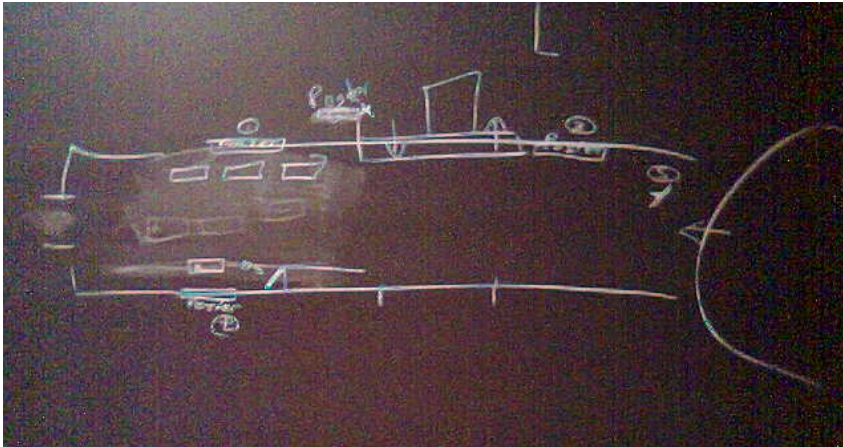
Experimentation and Change

- Increasing Experimentation with Services
  - ➢ developing hooks to commercial internet/subscription services
  - ➢ let users vote with their fingers

- Services go into Beta for a period (6 months, semester, etc)
  - ➢ those that get a lot of use are rolled into production
  - ➢ those that don't are discarded, moved to less prevalent part of menu, or get further evaluation

- Implementation/Change Management
  - ➢ implementation of new services midstream
  - ➢ changes in small to medium services
    - not always on semester schedule
    - users understand change nature of Internet

Customization

- Aleph (Templates)
  - Allows for
    - Flexibility, can insert scripts
    - Powerful
      - can access the data
      - create multiple versions of the same file
    - Customized look and feel
    - Relatively low programming threshold for basic functionality (HTML, CSS, for more advanced features Javascript)
  - Drawbacks
    - You can only work with the data you get on the screen
    - Unstructured, may have to shoehorn
    - Undocumented
    - Can't move from file to file (even on the same screen)

Open-ness

- SFX (Parsers/Displayers), MetaLib (Search Programs)
  - ➢ Allows for
    - Customization of system
    - Extensibility
  - ➢ Drawbacks
    - May not carry from version to version
    - Requires medium level of programming knowledge (HTML, CSS, PERL, Javascript)

APIs

- Aleph, MetaLib (X-Server), SFX (API)
  - Allows for
    - Deep customization
    - Data repurposing
    - Greater Flexibility and Extensibility
    - Structured data (computer can understand)
  - Drawbacks
    - Requires high level of programming knowledge (HTML, CSS, Scripting Language [PERL, PHP, .net, Ruby], Javascript, XML, Web Services, HTTP)
    - Multiple calls to different web services may introduce network latency
    - Most often pull, need more push APIs

Aleph as a Discovery System

Search WorldCat

Direct Export

FindIt

ALEPH OPAC

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Added Services

- FindIt
- EndNote/Refworks Export
- Search WorldCat

Mash-ups

- Mash-up
  - bringing different elements from disparate information systems to create a new work

FindIt

- An SFX like menu that offers the user special services, maps, and added information about the item of interest
- Originally conceived to pre-fill document delivery forms (faculty only) in ILLiad
- Maps became focus to guarantee no dead end for most users
- Extended Services became add-ons that we thought might be useful

FindIt Technology

- Getting Data
  - ➤ WebServices (Aleph XServer, ISBN.com, Maps)
    - XML
    - SRU
    - HTTP
  - ➤ Javascript (Google Book)
    - JSON

FindIt Technology (cntd)

- Display
  - ➢ XHTML
  - ➢ CSS
  - ➢ Javascript

How Users Access FindIt

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Info for students, faculty, visitors, or friends

ND CATALOG

Search [ND Libraries catalog ▾] for [   ] Go

Hesburgh Library > Catalog > > FindIt

No Image Available

http://books.google.com/books?bibkeys=ISBN:0
&callback=ProcessGBSBookInfo
request_type=call_number

<ISBNdb server_time="2008-07-24T18:13:23Z">
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22SCP3xBV_Q...sWWYg\x26source=gbs_ViewAPI","thumbnail
_url":"http://bks0.books.google.com/books?id=7OeulAjRJWQC\x26pg=
PP1\x26img=1\x26zoom=5\x26sig=ACfU3U2uSS7HDSDdl6yXM8KRt
eM3Z_Gzaw","previe...:"partial"}});

(Partial View)

THE LOST GERMAN SLAVE GIRL
JOHN BAILEY

customs surrounding slavery, immigration, and racial mixing, pitting a humble community of German immigrants against a hardened capitalist, as respected for his wealth and power as he is feared and distrusted, and his attorney, one of the brashest and most flamboyant lawyers of his time.</Summary>
                <Notes>"First published in 2003 in Australia by Pan Macmillan Australia Pty Limited, Sydney, Australia"--T.p. verso. Includes bibliographical references (p. 258-268).</Notes>
                <UrlsText/>
                <AwardsText/>
            </BookData>
        </BookList>
</ISBNdb>

[Faculty

FindIt L

</stacks_

Google Book Search

WorldCat - Find in and

WorldCat - Find more

WorldCat Identities - A

Amazon Reviews

Books-in-Print Descript

We're interested in what you think of this tool ...
please send us feedback.

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FindIt Future Enhancements

- Integrate with SFX
  - ➢ especially for determining the electronic counterpart for print items
- Pull availability information from Aleph (probably via AJAX)
- Use xISBN with Google Book Viewability
  - ➢ expand viewability to other editions

FindIt Aleph Integration

- Full Record
- Holdings Record
- Results List

FindIt on the Full Record

Full View of Record   🔍 FindIt

◀ Previous Record   Results List   Ne

Author :	Bailey, John, 1944 Dec. 15-
Title :	The lost **German slave girl** : the extraordinary true story of Sally Miller and her fight for freedom in old New Orleans / John Bailey.
	1st American ed.
Published :	New York : Atlantic Monthly Press, [2005]
	xiii, 268 p. ; 24 cm.

ND Has :	Locations
	Hesburgh Library General Collection
	F 379 .N553 M553 2005

Abstract :	Louisiana, 1843: a **German** immigrant thinks she recognizes a young **slave girl** as the long-lost daughter of her **German** friend, but the **girl** has no memory of such a past, and her

<a href=http://www.library.nd.edu/eresources/findit/findit.cgi? doc_num=$0600&aleph_session=&session" target="_blank">

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FindIt on the Holdings Record

ND Full Catalog - Holdings

Back

[002099718] Bailey, John, 1944 Dec. 15-:
The lost German slave girl :
New York : Atlantic Monthly Press, [2005]
xiii, 268 p. ; 24 cm.

Location :   Location:Hesburgh Library General Collection F 379 .N553 M553 2005

FindIt

Select year [All] Select volume [All] Select sublibrary [Hesburgh Library] ☐ Hide loaned items [Go]

◄ Previous Page   Next Page ►

Description	Item status	Due date	Library	Collection	Call Number	Requests	Note
			Hesburgh Library General Collection F 379 .N553 M553 2005				

◄ Previous Page   Next Page ►

<a href=# id="findItLink" target="_blank“>

<body topmargin="0" onload="javascript:setFindIt();">

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FindIt in the Results List

Records 1 - 3 of 3 for Words= german slave girl
Sorted by: Relevance

◄ Previous Page   Next Page ►

Jump to #

#		Year ↑ ↓	Author ↑ ↓	Title ↑ ↓	Locations ↑ ↓ / Call No. ↑ ↓
1	☐	2005	Bailey, John, 1944 Dec. 15-	**The lost German slave girl : the extraordinary true story of Sally Miller and her fight for free** \<Book\> Hesburgh Library Owned: 1 Checked Out: 0 Display full record	Hesburgh Library General Collection F 379 .N553 M553 2005 🔍 FindIt
2	☐	2008		**Willa Cather : new facts, new glimpses, revisions /** \<Book\> Hesburgh Library Owned: 1 Checked Out: 0	Hesburgh Library General Collection PS 3505 .A87 Z93824 2008 🔍 FindIt

\<a href="http://www.library.nd.edu/eresources/findit/findit.cgi? doc_num=$1000&aleph_session=&session" target="_blank">

Configure $1000 in xxx01/tab/www_tab_short.eng

EndNote and Refworks

- 2 Bibliographic Utilities supported on campus.

- What was already in place?

  ➤ Z39.50 protocol allowed remote search of the catalog from within EndNote or RefWorks (limited search capability)

  ➤ Aleph introduced an EndNote download format (RIS). User could download a text-file and import records manually.

Direct Export

- We want the user to be able to:
  - ➤ Search and select records *in Aleph*
  - ➤ Select RefWorks or EndNote
  - ➤ Export records directly to the
    - the EndNote library on the user's workstation
    - the user's RefWorks account
  - *without downloading an intermediate text file*

EndNote and Refworks Technology

- Getting Data
  - Javascript
  - Aleph Template Variables
  - Templates – HTML and Forms
    - web pages and notices [export formatting] live different places (f-tree and form_lang)

- Pushing Data to Bibliographic Management Programs
  - Refworks
    - PERL, but could use Javascript
    - Browser redirection (url has location of file on our server)
  - EndNote
    - PERL
    - HTTP Header Manipulation – MIME type
    - Data Dump Direct to Browser
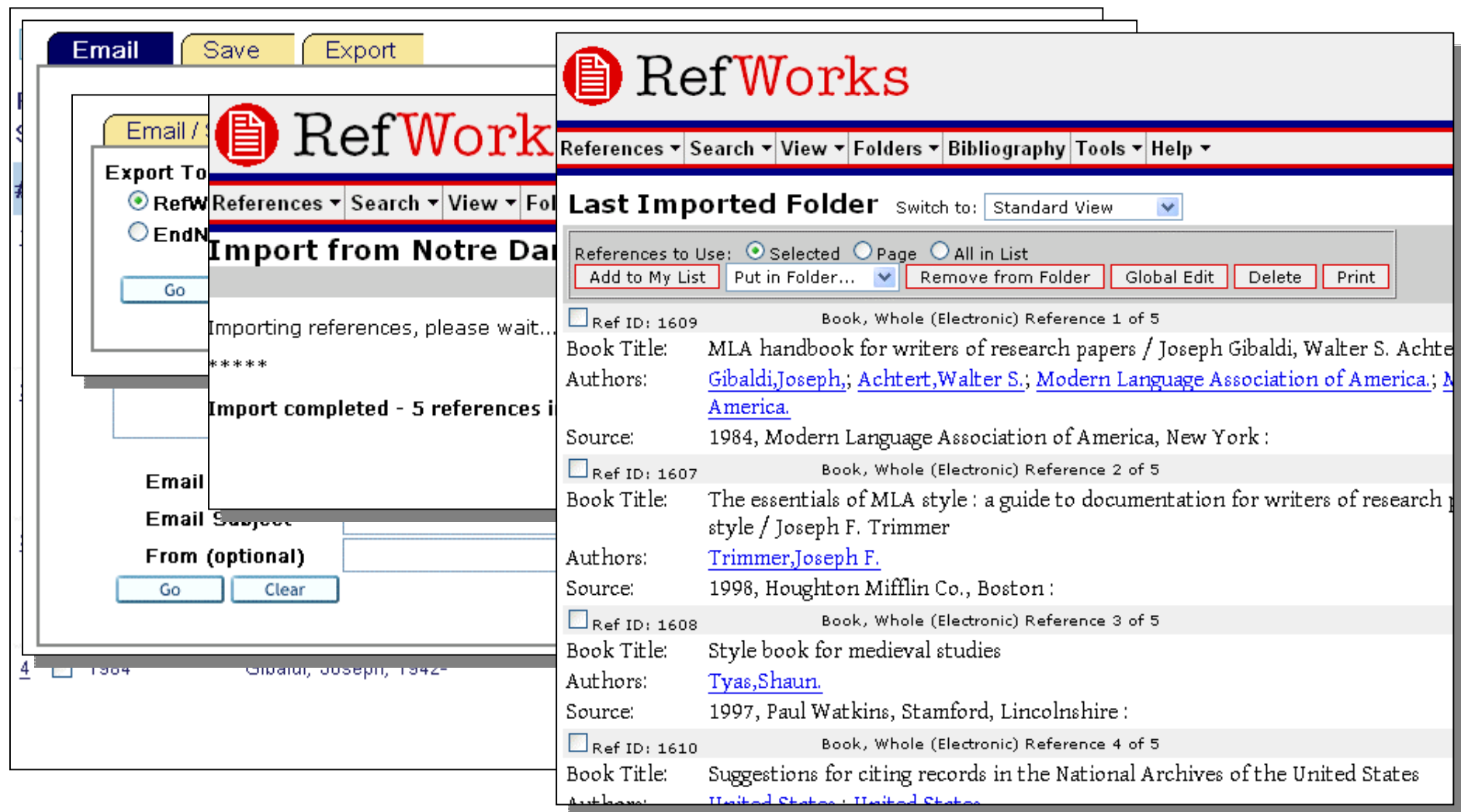
EndNote/Refworks Aleph Integration

- User selects record(s) from
  - Results list
  - Full Record
  - E-Shelf
- Added a *hidden* form to *short-mail*, *full-mail* & *myshelf-mail*
  - Selected necessary options for export (unicode & RIS)
  - Linked form to an "Export" tab
- Added a form to the *save-mail*, which is displayed when the file extension is *.end*
- Form sends server information and temp file name to a cgi script: export_citations

Refworks

- Build RefWorks URL with
  - Name and location of temp file
  - filter selection (RIS)
  - encoding (unicode)
- Browser is redirected to RefWorks URL
- RefWorks server
  - retrieves temp file from Aleph server
  - imports records into user's account
  - opens user's account in browser

Refworks Export

How Refworks Export Works

Aleph

RefWorks

CGI

File Request

RIS Files (Bibs)

RefWorks URL

RefWorks Account

Export Request

Patron
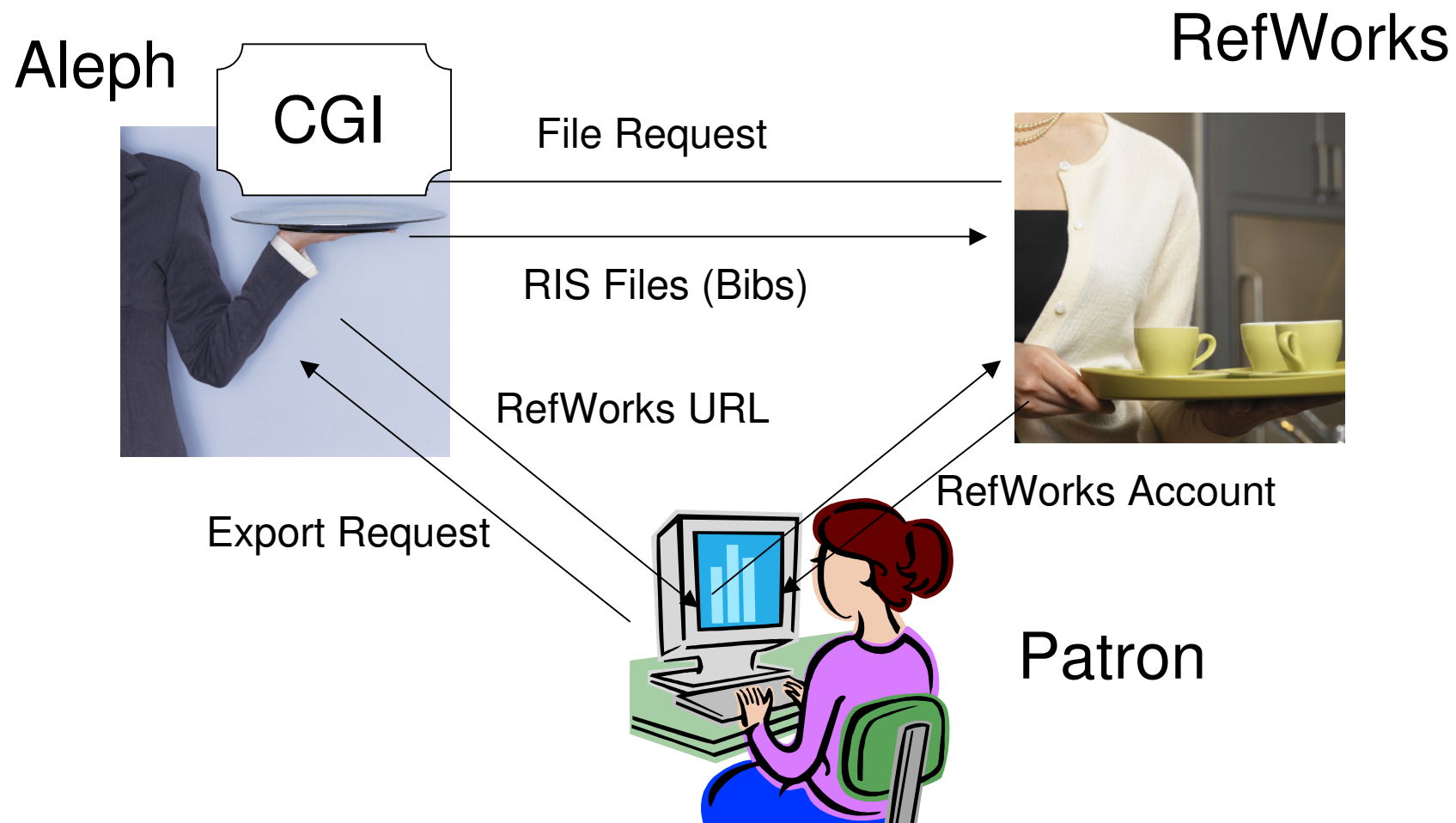
EndNote

- Opens temp file on Aleph server
- "Prints" file to user's browser, with MIME type
  - application/x-endnote-refer
- Browser opens file with EndNote
- User selects an EndNote library on workstation
- EndNote imports records

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EndNote Export

How EndNote Direct Export Works

Aleph

application/x-endnote-refer

RIS
File

EndNote

Library

Export Request
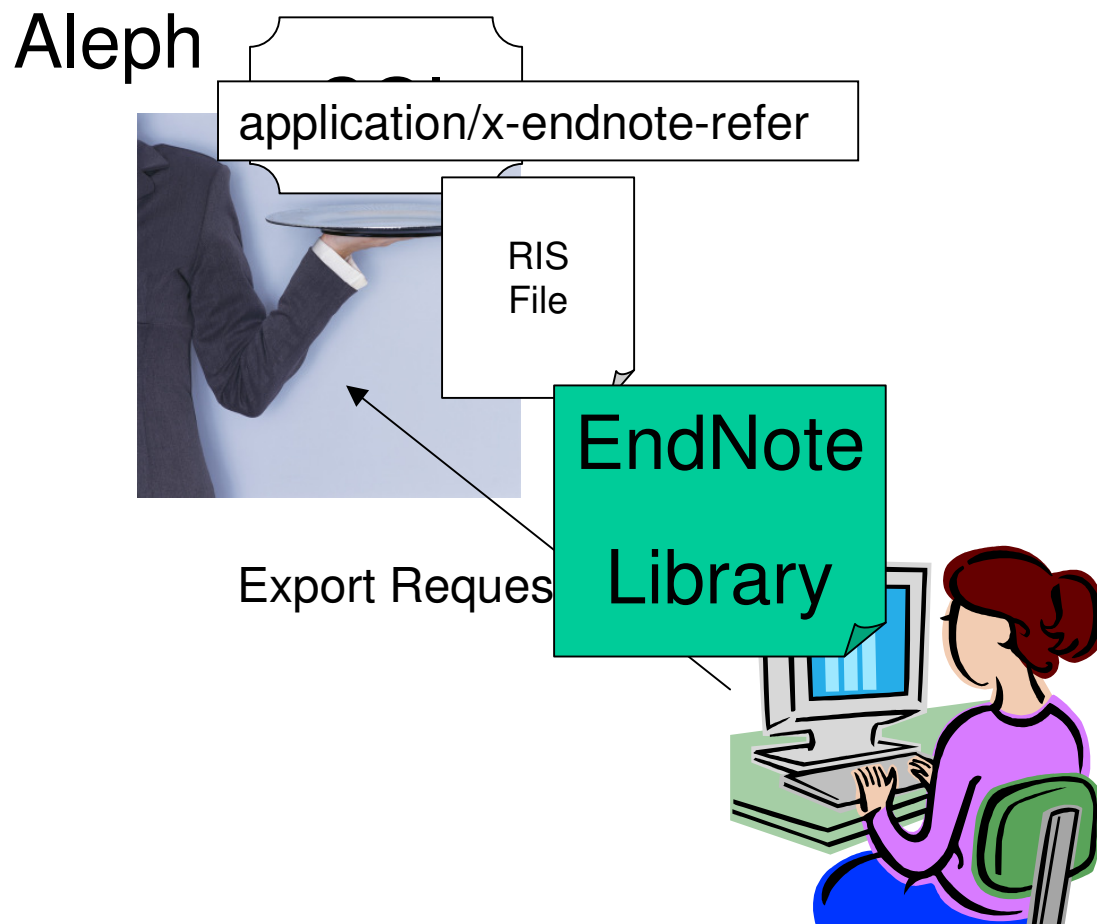
WorldCat Search

- Automatically redirect the user's search from Aleph to WorldCat (no re-keying)
- Two Main Goals:
  - Eliminate OPAC dead-ends when needed items are not in the collection
  - Increase use of WorldCat direct ILL request

What we Already Had in Place

- WorldCat (FirstSearch version) available on library homepage (but not from the OPAC)
- WorldCat direct request (via SFX)
  - User could request WorldCat items without keying them into an ILL form
  - Item request forwarded to OCLC without staff intervention in ILL office

Top 3 reasons to use WorldCat.org

(instead of FirstSearch)

3. WorldCat.org has a more user friendly interface (next gen), including faceted browsing

2. WorldCat.org is available to anyone who searches our OPAC, regardless of affiliation

1. FirstSearch does not support URL embedded searches

WorldCat Search Technology

- Getting Data
  - ➢ Javascript
  - ➢ Aleph Template Variables

- Sending Data to WorldCat
  - ➢ PERL
  - ➢ HTTP Redirection

Aleph vs. WorldCat Search Syntax

Aleph

WRD = (key words)
WAU = (author)
WTI = (title)
WSU = (subject)
WLN = (language)

Browse

scan code=IND & scan start = text

Boolean

IND = (terms) OPR IND = (terms)
IND = (terms OPR terms)

WorldCat

q= key words
au: author
ti: title
su: subject
> limit (language)

No Browse

No Boolean Operators

Affiliation

qt=affiliation&ai=University_ndlibraries

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Aleph vs. WorldCat Examples

Aleph

WRD = (oracle)

WAU = (twain) AND WTI = (sawyer)

WAU = (twain) AND WLN = (fre)

WRD = wom!n executives

scan_code = WTI and

scan_start = hunting of the sna

WAU = (heinlein OR asimov)

WorldCat

q=oracle

q=au:twain ti:sawyer

q=au:twain > fre

q=wom!n executives

q=ti:hunting of the sna?

Cannot render

WorldCat Search Aleph Integration

- Keyword Results
- Browse List
- Browse Results
- KW No Records

- Advance Keyword

- short-2-head (script)
- scan-acc-head
- short-1-head
- find-b-list-head
- find-b-permute-head
- find-a

A separate script is needed for each file

WorldCat Search Aleph Integration (cntd)

- Wrote JavaScript on Search Results page (actually, several search results pages) to capture the users Aleph query.

- Did some minimal processing of the users query on the client side to standardize the search.

- Sent the query off to a CGI script on the Aleph server

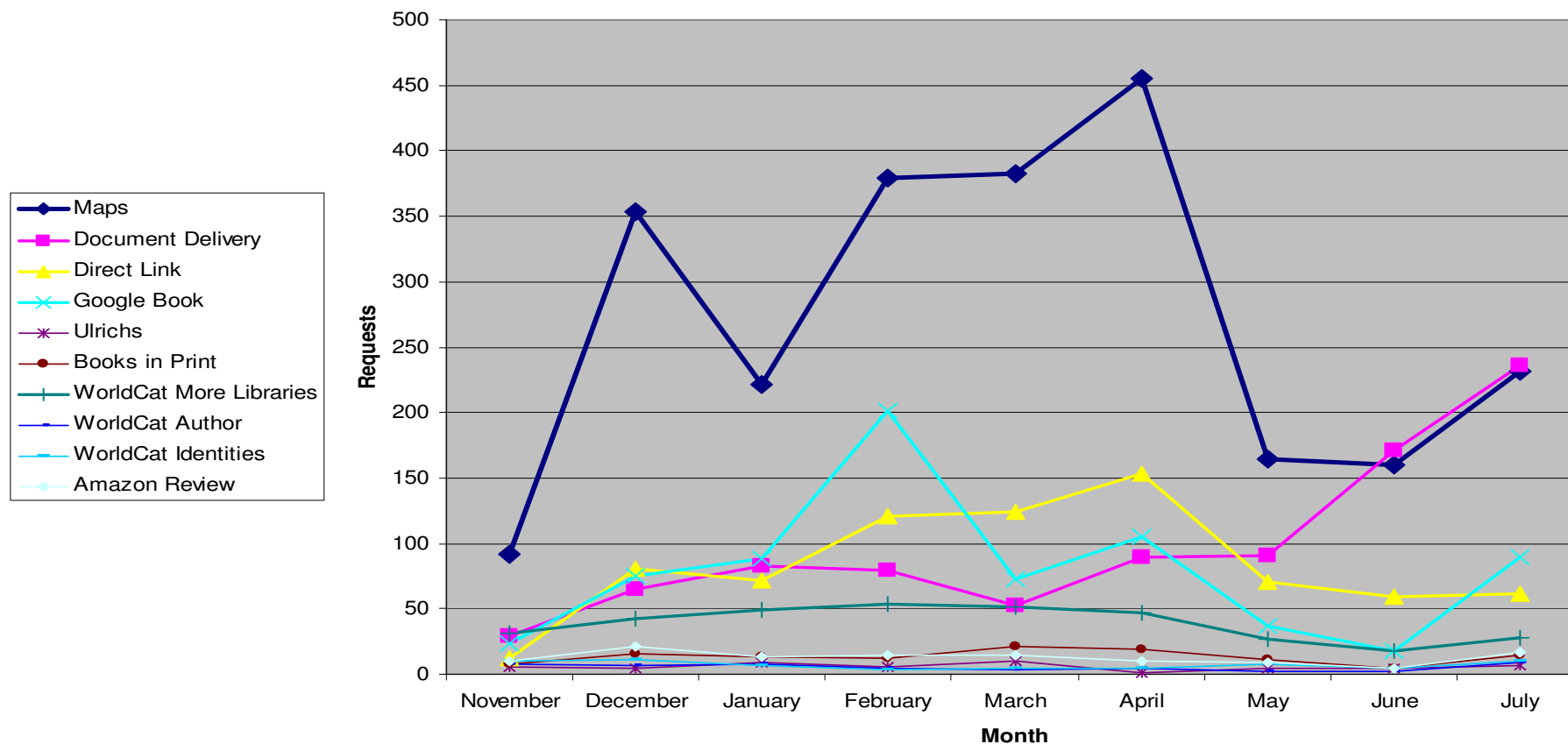# WorldCat Search

WorldCat Search

WorldCat Search

http://worldcat.org/search?qt=affiliation&ai=University_ndlibraries&q=ti%3Asawyer+au%3Atwain&fq=ln%3AFRE+%3E+&qt=advanced
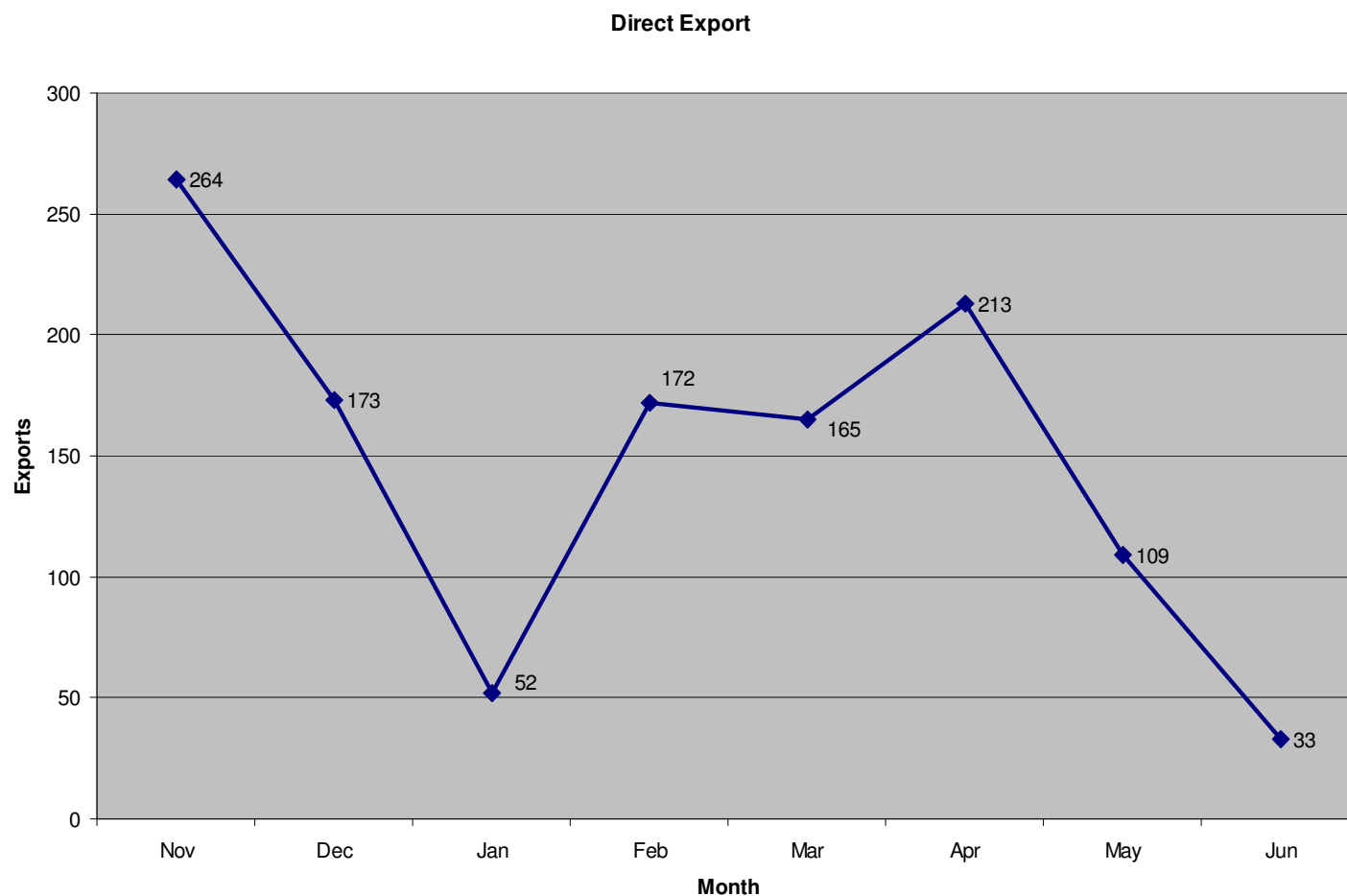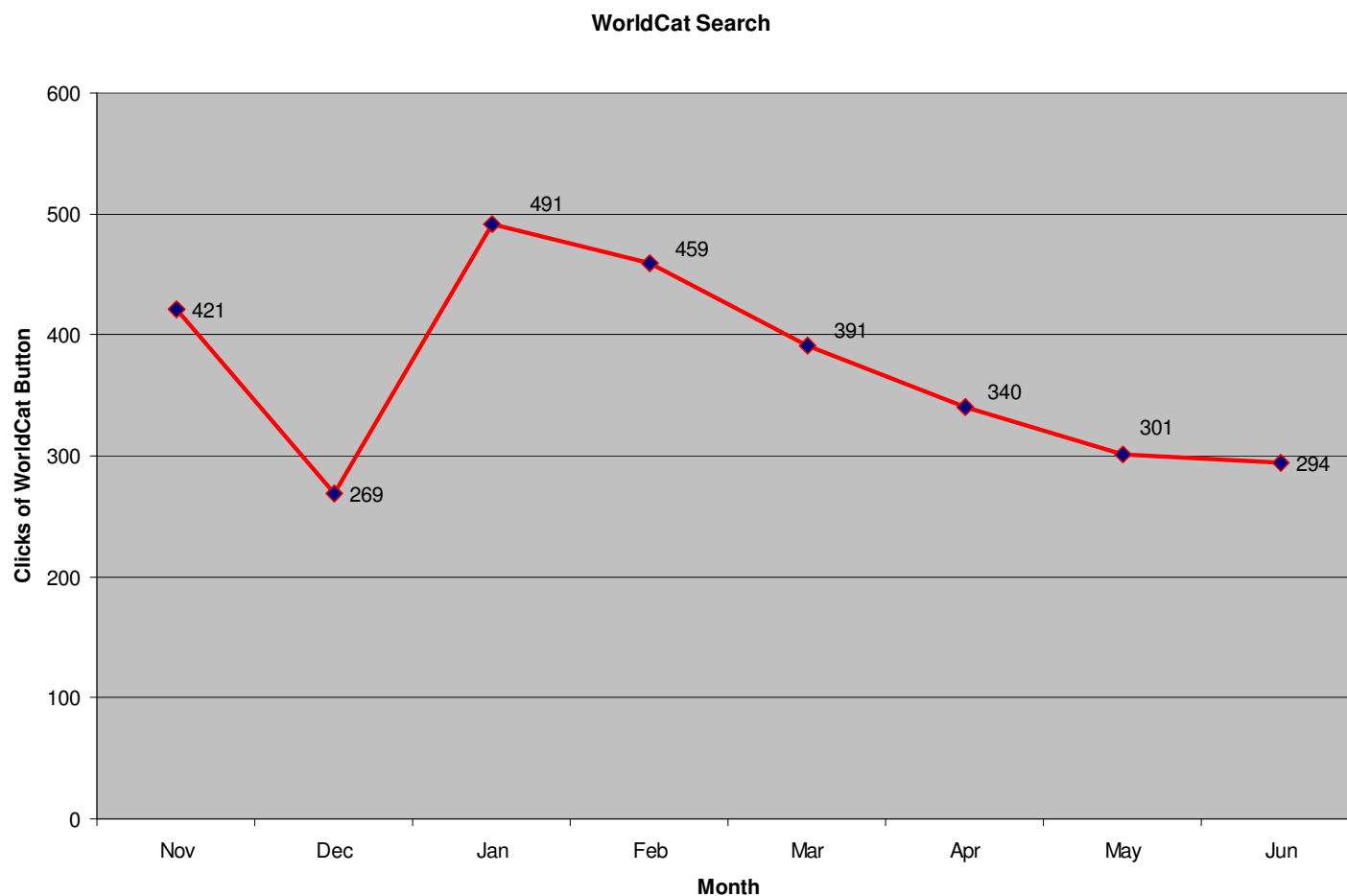
FindIt Usage Trends

Total FindIt Menus Requested

Added link from brief results.

FindIt Usage Trends

Service Click Through Trends

Export Usage

Direct Export

WorldCat Search Usage

WorldCat Search

A line chart titled "WorldCat Search" plotting "Clicks of WorldCat Button" (y-axis, 0 to 600) against "Month" (x-axis, Nov through Jun):

- Nov: 421
- Dec: 269
- Jan: 491
- Feb: 459
- Mar: 391
- Apr: 340
- May: 301
- Jun: 294

Thank You

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